

Title (en)  
INTERNAL COMBUSTION ENGINE CONTROL APPARATUS

Title (de)  
STEUERVORRICHTUNG FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)  
APPAREIL DE COMMANDE DE MOTEUR À COMBUSTION INTERNE

Publication  
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Application  
**EP 11796600 A 20110413**

Priority  
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Abstract (en)  
[origin: EP2698518A1] An engine system 1 is equipped with an engine ECU 10 that generally controls an operation of an engine 100, a hydraulic VVT mechanism 27 capable of opening an exhaust valve 23 in an intake stroke besides a valve opening operation in an exhaust stroke and changing opening and closing phases of the exhaust valve 23, a shut-off valve 163 capable of shutting off an EGR passage 16 jointed to an exhaust manifold, and a variable nozzle vane mechanism 141 controlling the supercharging efficiency of a turbocharger 14. The engine ECU adjust the hydraulic VVT mechanism 27 to open the exhaust valve 23 in the intake stroke besides the valve opening operation in the exhaust stroke and introduce a portion of exhaust gas in the previous cycle into the combustion chamber (internal EGR). Also, the engine ECU 10 adjusts the shut-off valve 163, the hydraulic VVT mechanism 27 and the variable nozzle vane mechanism 141 to control the amount of internal EGR introduced into the combustion chamber.

IPC 8 full level  
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Citation (search report)

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**EP 11796600 A 20110413**; JP 2011059173 W 20110413; JP 2011548464 A 20110413